

In The Claims

Please cancel claim 4.

Please amend claims 1, 3, 5 as follows:

E₁

1. (Twice Amended) A semiconductor device, comprising:

a semiconductor chip having a plurality of electrode pads formed at a periphery of a front surface thereof;

a wiring film formed on the front surface side of said semiconductor chip by laminating an insulation film on a lead pattern;

an outer connection terminal formed so as to protrude above said wiring film;

a plurality of leads extending from said wiring film and connected to the electrode pads on said semiconductor chip at extended tips end thereof;

an external ring provided so as to surround said semiconductor chip and formed with a plurality of through holes positioned entirely outside of a perimeter edge of the semiconductor chip; and

a sealing resin filled between said semiconductor chip and said external ring, the sealing resin further being filled in the through holes to increase the contact area between the sealing resin and the external ring which strengthens the bond between the sealing ring and the external ring.

E₂

3. (Twice Amended) A lead frame, comprising:

a wiring film formed by laminating an insulation film on a lead pattern;

an external connection terminal formed so as to protrude above said wiring film;

a plurality of leads extending from said wiring film and forming connecting portions to electrode pads on a semiconductor chip at extended tip ends thereof;

an external ring provided outside said wiring film, having an opening portion capable of housing said semiconductor chip and formed with a plurality of through holes positioned entirely outside of a perimeter edge of the semiconductor chip when the opening portion houses the semiconductor chip wherein an outwardly extended open portion is formed on the opening portion and positioned on a rear surface side of the semiconductor chip.

E3 5. (Twice Amended) An electronic apparatus including a printed wiring board loaded with a semiconductor chip, said semiconductor device, comprising:

a semiconductor chip having a plurality of electrode pads formed at a periphery of a front surface thereof;

a wiring film formed on a front surface side of said semiconductor chip by laminating an insulation film on lead patterns;

an outer connection terminal formed so as to protrude above said wiring film;

a plurality of leads extending from said wiring film and connected to the electrode pads on said semiconductor chip at extended tip ends thereof;

an external ring provided so as to surround said semiconductor chip and, formed with a plurality of through holes positioned entirely outside of a perimeter edge of the semiconductor chip; and

a sealing resin filled between said semiconductor chip and said external ring, the sealing resin further being filled in the through holes to increase the contact area between the sealing resin and the external ring which strengthens the bond between the sealing ring and the external ring, wherein said external connection terminal and an electrode on said printed wiring board are connected.

E4 13. (New) The semiconductor device of claim 1, wherein the external ring is formed with a plurality of blind holes positioned entirely outside of the perimeter edge of the semiconductor chip.

14. (New) The semiconductor device of claim 13, wherein the sealing resin is filled in the blind holes to increase the contact area between the sealing resin and the external ring which strengthens the bond between the sealing ring and the external ring.

15. (New) The semiconductor device of claim 3, wherein the external ring is formed with a plurality of blind holes positioned entirely outside of the perimeter edge of the semiconductor chip.

16. (New) The semiconductor device of claim 5, wherein the external ring is formed with a plurality of blind holes positioned entirely outside of the perimeter edge of the semiconductor chip.

17. (New) The semiconductor device of claim 16, wherein the sealing resin is filled in the blind holes to increase the contact area between the sealing resin and the external ring which strengthens the bond between the sealing ring and the external ring.